

To: "Jim Schrempp" <j\_schrempp@audiblemagic.com>  
From: "Franck Chastagnol" <fchastagnol@youtube.com>  
Cc: "v\_ikezoye@audiblemagic.com" <v\_ikezoye@audiblemagic.com>  
Bcc:  
Sent Date: 2006-08-15 21:58:06 GMT  
Subject: Re: YouTube evaluation questions

---

Hi Jim,

See answers inline.

Also, if you would have any documentation that describes the list of fields available in your metadata DB (and their meaning), that would help greatly YouTube making a decision regarding whether or not we would need this metadata information.

Thanks,  
Franck

On Aug 15, 2006, at 6:32 AM, Jim Schrempp wrote:

> Hi Franck,  
>  
> WRT deleting one fingerprint, is there a reason that you could not  
> just ignore an identification that is made with a fingerprint you  
> wish was deleted? It seems like either we have to maintain this  
> state or you do, and this is more connected to your processes than  
> ours. Let me know your thoughts.

it seemed more effective to me to delete the fingerprints from the reference DB.  
this way the correlation server does not have to run correlation against that deleted fingerprints.

> As to the XML, YouTube was interested in the bare bones service so  
> our deal with you does not include the actual metadata identity of  
> what we find. You are currently running against one of our demo  
> servers so you see the metadata. When you move into production  
> most of the fields will say "content was identified, no metadata  
> is available". You know that a positive id was made by the status  
> 2006 in the tag <IdResponse><IdStatus>  
>  
> The <AmlItemId> in the response is your best unique identifier from  
> us. It never changes. Never ever.

Make sense.  
Does the <RecordingOwner> field indicates to which company (Warner, Sony) owns the right for the song ?

> I hope this helps. Feel free to ask any other questions you may  
> have.  
>  
> Best Regards,  
> Jim  
>  
> Audible Magic Corporation

> 408.399.6405 x105  
>  
> This message is intended for the use of the addressee only  
> and may contain confidential information and trade secrets  
> of Audible Magic. Unauthorized use or disclosure is  
> prohibited.  
>  
>  
>  
> -----Original Message-----  
> From: Franck Chastagnol [mailto:fchastagnol@youtube.com]  
> Sent: Monday, August 14, 2006 5:45 PM  
> To: Jim Schrempp  
> Cc: thom@musclefish.com; 'Frey Waid'; v\_ikezoye@audiblemagic.com  
> Subject: Re: YouTube evaluation questions  
>  
>  
> thanks Jim for the answers - it makes sense.  
>  
> In terms of API to add/delete fingerprints, I think we may need  
> something a bit more flexible than sending to AudibleMagic by FTP  
> the whole fingerprint archive.  
> An HTTP POST API (or equivalent) that allows to add/delete 1  
> fingerprint would be much easier for us to integrate with.  
>  
>  
> A few more questions regarding your fingerprinting API:  
> a. do you have any documentation for this API I could take a  
> look at ? I'm particularly interested in a definition fro all the  
> fields returned in the XML response.  
>  
> b. If there is a match, can we know to which media company it  
> belongs to ? (Warner, Sony, ...) The XML reponse includes a field  
> <RecordingOwner> but in my tests, it was not populated.  
>  
> c. You mentioned ISRC is not a good choice as unique ID.  
> The XML response has a field <SigGUID>. Is this the unique ID of  
> the reference fingerprint that matched the sample we submitted ?  
> Is this SigGUID guaranteed to be permanent over time (e.g. if we  
> store it in our DB, we can refer to it later and it will point to  
> the same reference fingerprint in your DB) ?  
>  
> Thanks,  
> Franck  
>  
>  
> On Aug 14, 2006, at 2:05 PM, Jim Schrempp wrote:  
>  
>> Hi Franck,  
>>  
>> In our discussions with YouTube it was made clear to us that  
> these  
>> fingerprints of your own content needed to remain completely  
> separate.  
>> We were not to have access to any metadata about them.  
>> As a result, we planned to use the following available process.  
>>  
>> 1. We would provide you with two command line utilities.

>>  
>> 1a. The first will create a reference fingerprint file from an  
> MP3 or  
>> WAV file (extension: amfp). Sample rate of at least 20050Hz. If  
> using  
>> MP3, a bit rate of at least 96kbps. The reference audio sample  
> needs  
>> to begin at an offset of 0 in the video and be at least 45  
> seconds  
>> long. I suggest creating a fingerprint of the entire video  
> soundtrack.  
>> The fingerprints are small and this will give you the most  
> flexibility  
>> later.  
>>  
>> 1b. A second utility will create a reference database image file  
>> (extension: amdb) by recursing a directory structure containing  
>> fingerprint files. The utility will take a 20 second segment of  
> each  
>> reference fingerprint from an offset of 7 seconds (as we work  
> with you  
>> we may want to adjust this in the future). A set of reference  
>> database image files can be deployed onto one of our IDServers.  
> We  
>> recommend structuring your fingerprint archive so that database  
> image  
>> files contain no more than 100,000 reference fingerprints.  
>>  
>> When you send in a fingerprint of an unknown soundtrack for  
>> identification, you would HTTP POST it to either our music  
> fingerprint  
>> IDServer, or the YouTube content IDServer (or perhaps to both at  
> the  
>> same time). We had discussed with YouTube that the server  
> holding your  
>> specific take-down fingerprints would be set to examine the  
> unknown  
>> more exhaustively. You can afford to do that because the number  
> of  
>> reference fingerprints in your take-down database will be small  
> - on  
>> the order of 100-200,000 or so.  
>>  
>> 1c. One of the input parameters to the fingerprint creation  
> utility is  
>> an arbitrary string of up to 50 characters; this string is  
> embedded in  
>> the fingerprint file and will be the only identification  
> returned from  
>> the identification process. Your application would use this  
> string as  
>> an index into your metadata.  
>> Again, this was part of the requirement to keep us completely  
> blind to  
>> the actual metadata of your take-down fingerprints.  
>>  
>>  
>> 2. We do not currently offer an API to query our music metadata.

>> We could make one for you. Our preference would be that you post  
> the  
>> query in an HTTP transaction and we would return an XML package  
> of the  
>> result. However, not all of our metadata entries have an ISRC  
> value.  
>> If you were to get a hit on ISRC, then you know the song is in  
> the  
>> database, but a not-found is inconclusive.  
>> You should also know that in our experience ISRC is unreliable.  
>> Some labels have used the same ISRC code for different master  
>> recordings.  
>>  
>> This query was not part of the initial contract so if you want  
> it I  
>> will have to talk to Vance. I'm sure this would entail NRE  
> charges to  
>> you and perhaps a monthly fee.  
>>  
>>  
>> 3. To remove a fingerprint you would remove the fingerprint from  
> the  
>> archive and use the utility described above to regenerate the  
> database  
>> image. You would FTP the new image to our IDServer. The IDServer  
>  
>> checks every 5 minutes for database updates, but it only does  
> one  
>> update an hour. Or, your application could simply ignore an  
>> identification if it was made with a fingerprint you wish to  
> remove.  
>>  
>>  
>>  
>>  
>> What I have described above is the process we envisioned when  
> talking  
>> with your team. We are certainly willing to alter the process in  
> ways  
>> that will make it easier for you. There will probably be a cost  
> for  
>> anything other than minor changes.  
>>  
>> I look forward to working with you on this project.  
>>  
>> Best Regards,  
>> Jim Schrempp  
>>  
>> Audible Magic Corporation  
>> 408.399.6405 x105  
>>  
>> This message is intended for the use of the addressee only  
>> and may contain confidential information and trade secrets  
>> of Audible Magic. Unauthorized use or disclosure is  
>> prohibited.  
>>  
>>  
>>

>> -----Original Message-----  
>> From: Franck Chastagnol [mailto:fchastagnol@youtube.com]  
>> Sent: Monday, August 14, 2006 11:33 AM  
>> To: j\_schrempp@audiblemagic.com  
>> Cc: thom@musclefish.com; Frey Waid  
>> Subject: YouTube evaluation questions  
>>  
>> Hi Jim,  
>>  
>> I'm working with Frey Weid on the evaluation of the AudibleMagic  
>  
>> solution.  
>>  
>>  
>> As you may know, in addition to using the reference fingerprints  
> of  
>> copyrighted content provided by AudibleMagic, YT is also  
> interested in  
>> adding (and managing) its own reference fingerprints to the DB.  
>> See below some technical questions for you to understand how we  
> would  
>> be able to achieve this.  
>>  
>>  
>> Also, an unrelated question regarding the MFCBR API:  
>> For some of the mp3 samples I have been testing with, the API  
> method  
>> MFXMLIDRequestAnalyzeAndDestroy returns undocumented error  
>> 78 and prints "Error: mp3 decoder failure." on stderr.  
>> Do you know what this error means and how to avoid it ?  
>> It that helps, I can send you a mp3 sample to reproduce.  
>>  
>>  
>> I would appreciate if you would have time to answer these  
> questions,  
>>  
>> Thank you,  
>> Franck  
>>  
>> -----  
>>  
>> 1. Is there an API to upload a new reference fingerprint to the  
> DB ?  
>>     a. please provide details (type of API: XML-RPC, REST,  
> other) and  
>> share any documentation available  
>>     b. what is the preferred format/codec, bitrate, length for  
> a  
>> reference fingerprints ?  
>>     c. along with standard meta-data (Album, Artist, Song,  
> lsric,  
>> etc...), can YT upload its own meta-data which will then be  
> returned  
>> when calling the fingerprinting match API ?  
>>  
>> 2. Is there an API to query against the DB to determine if the  
>> fingerprint of a given Audio (based on ISRC) is present ?  
>>     a. please provide details (type of API: XML-RPC, REST,

> other) and  
>> share any documentation available  
>>  
>> 3. Is there an API to remove a fingerprint from the DB ?  
>> a. please provide details (type of API: XML-RPC, REST,  
> other) and  
>> share any documentation available  
>>  
>> -----  
>>  
>

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple Computer//DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
    <key>date-sent</key>
    <real>1155675486</real>
    <key>flags</key>
    <integer>196609</integer>
    <key>original-mailbox</key>
    <string>local:///Outbox</string>
    <key>sender</key>
    <string>Franck Chastagnol &lt;fchastagnol@youtube.com&gt;</string>
    <key>subject</key>
    <string>Re: YouTube evaluation questions</string>
    <key>to</key>
    <string>Jim Schrempp &lt;j_schrempp@audiblemagic.com&gt;</string>
</dict>
</plist>
```

---